# COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

BLACKSTONE GAS COMPANY
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D.T.E. 03-73

# INITIAL BRIEF BLACKSTONE GAS COMPANY

# I. PROCEDURAL HISTORY

On July 31, 2003, in accordance with G.L. c. 164, §691, Blackstone Gas Company ("Blackstone" or the "Company") filed with the Department of Telecommunications and Energy (the "Department") its Forecast and Supply Plan for the five-year forecasting period of January 1, 2003 through December 31, 2008 (the "Forecast and Supply Plan") Exh. BGC-1.

Pursuant to its duly published notice, the Department conducted a public hearing at its offices on September 30, 2003. The Attorney General of the Commonwealth of Massachusetts (the "Attorney General") filed a Notice of Intervention pursuant to G.L. c. 12, §11E dated September 23, 2003. The Department issued Information Requests to the Company, DTE 1-1 through DTE 1-9 and the Attorney General issued Information Requests to the Company, AG 1-1 through AG 1-2. The Company responded to said requests on October 24 and 27, 2003, respectively.

After a review of the filing by the Company and its responses to the Information Requests, the Department and Attorney General had no further questions regarding the Forecast and Supply Plan. The evidentiary record includes the Company's Forecast and Supply Plan and responses to Information Requests issued by the Department and Attorney General This

evidentiary record demonstrates that the Forecast and Supply Plan ensures that a necessary energy supply for Blackstone customers will be available with a minimum impact on the environment at the lowest possible Cost.

The Attorney General indicated it would not file a brief in this matter. The Company's Initial Brief is submitted in accordance with the procedural schedule established by the Hearing Officer.

# II. BACKGROUND ON THE COMPANY

The Company provides natural gas sales and distribution services to residential and commercial customers in Blackstone and Bellingham Massachusetts. The Company served 831 Residential heating, 155 Residential non-heating, 111 commercial customers and 1 school in the Company's service area during 2002. Exh. BGC-1, p. 8.

Blackstone's most recent Forecast and Supply Plan was submitted to the Department on October 25, 2000 and the Department's review of such filing was docketed as <u>Blackstone Gas</u> <u>Company</u>, D.T.E. 00-81. Exh. BGC-1, p. 1. In an Order in D.T.E. 00-81 dated May 4, 2001, the Department approved such Forecast and Supply Plan with a number of directives for the Company's next Forecast and Supply Plan. These included utilizing at least 20 years of weather data, a more rigorous analysis in developing planning standards and a forecast of customers migrating to transportation service. This filing by the Company, Exh. BGC-1, is in compliance with the directives in the Department's in <u>Blackstone Gas</u>, D.T.E. 00-81. The Company's filing demonstrates that, over the forecast period, the Company has planned for adequate resources to meet the demands of firm customers under normal and design conditions. During the forecast period the Company will issue a request for proposals ("RFP") to extend or replace its current

supply and contract with Duke Energy which expires on October 31, 2005. The Company will issue an RFP in the Summer of 2004. Exh. D.T.E. 1-7.

#### A. Standard of Review

Pursuant to G.L. c. 164, §691, the Department reviews a gas company's sendout forecast to ensure that the forecast accurately projects the sendout requirements of the utility's market area. Blackstone Gas, D.T.E. 00-81, pp. 1-2; Berkshire Gas, D.T.E. 98-99, p. 2; Boston Gas Company, D.T.E. 97-81, pp. 2-3 (2000). The Department's regulations and precedent require that the forecast reflect accurate and complete historical data as well as reasonable statistical projection methods. Id. citing 980 C.M.R. 7.02(9)(b).

The Department evaluates the reasonableness of a projection method based upon whether the methodology is (a) reviewable, (b) appropriate and (c) reliable. Blackstone Gas D.T.E. 00-81, p. 3, Berkshire Gas, D.T.E. 98-99, p. 3. A forecast is reliable if it "contains enough information to allow a full understanding of the forecast methodology." A forecast is appropriate if the methodology is "technically suitable to the size and nature of the particular gas company." A forecast is reliable if the methodology "provides a measure of confidence that its data, assumptions and judgments product a forecast of what is most likely to occur." Id.; Colonial Gas Company, D.P.U. 96-18, p. 5. (1996); Bay State Gas Company, D.P.U. 93-129, p. 5 (1996). As described below, the Company has demonstrated that its sales and sendout forecast methodology is reviewable, appropriate and reliable.

## B. Blackstone's Forecast Methodology is Reviewable, Appropriate and Reliable.

The Company developed rate class-based forecasts of firm sendout based on its forecast of the number of customers and a forecast of the use per customer.

The annual number of customers was calculated from monthly customer data for the last ten years. (1993-2002). The equation for number of customers for each rate class was specified with three different independent variables, population, labor force and a simple time trend. After reviewing the three regressions, the regression analysis using the time trend as the independent variable was used to forecast the number of customers. The results of each regression analysis is set forth in the appendix to the filing. Table 1 shows the historic and forecast of the number of customers. Exh. BGC-1, pp. 7-8.

The second step in developing the sendout forecast is forecasting use per customer, based on normalized sales for each rate class. Normalized sales were determined for each rate class by calculating the average base use for the months of July and August. This base load is not affected by weather. The base use is then subtracted from the monthly actual use to determine the monthly heating load. The monthly heating load is then divided by the actual degree days in a month to determine use per degree day. The use per degree day was then multiplied by the normal degree days in each month and then the base use was added back to produce normal use. Exh. BGC-1, pp. 4-5. The normal degree days were calculated from monthly weather data each month for the last thirty-three years at the West Medway, MA weather station owned and maintained by the National Weather Service. Exh. D.T.E. 1-2.

The sendout forecast was developed by combining the forecast of the number of customers and use per customer for each rate class. Exh. BGC-1, p. 10 and Table 3.

The Company forecasted no firm transportation load during the forecast period based on several factors unique to the Company. Exh. BGC-1, p. 11. Blackstone has had only one inquiry into transportation service. <u>Id</u>. This customer did not elect transportation. Exh. D.T.E. 1-5.

Blackstone obtains interstate pipeline service from Tennessee Gas Pipeline under its FT-GS tariff designed for small customers. This tariff has no demand charges but only a volumetric charge. This cost occurrence of interstate transportation causes the Company's Winter CGA rate to be lower than most other LDCs. Furthermore, Blackstone does not assign capacity under the FT-GS to transport customers. Thus, transport customers must obtain their own capacity. Finally, Blackstone serves only 111 commercial customers, with an average annual usage of less than 350 ccf. As the Company has no large customers, the administrative costs incurred by a customer to transport gas would appear to negate any possible savings for small commercial customers. For the above reasons, the Company does not forecast any transportation load.

In summary, the Company's forecasting methodology fully satisfies the Department standards. First, the forecast is easily reviewable. The narrative fully and clearly describes the forecasting approach employed in the Forecast and Supply Plan and provides the results of the various regression analyses performed as well as plotting historical and forecasted results. A complete compilation of workpapers was also presented. The forecast employing econometric techniques is appropriate and fully consistent with the types of models presented to and accepted by the Department in other forecast proceedings. Accordingly, the Department should find that the Company's forecast methodology satisfied the requirements of relevant Department precedent and directives.

# III. <u>DEVELOPMENT OF PLANNING STANDARDS</u>

## A. Introduction

The Company's normal year planning standard is calculated based upon the mathematical average of the total degree-days by month for the most recent 33-year period. This resulted in a

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<sup>570</sup>Int fact, the Company is not allowed to assign capacity under the FT-GS rate schedule.

normal year standard of 6,473 degree days. Exh. BGC-1, p. 5. In addition, the Company employed a design day standard of 71 degree days. The Company's design day standard reflected a probability of occurrence of once in 30 years. The Company's design year standard of 7,256 degree days was also derived from its weather study and reflects a probability of occurrence of once in 30 years. Finally, Blackstone employs a cold-snap analysis by assuming ten consecutive days equal to the design day standard. Exh. BGC-1, p. 13.

#### B. Normal Year Standard

As stated, the Company's normal year standard is based upon the arithmetic average of historical degree day data. Based upon this method, the Company calculated a normal year standard of 6,473 degree days. Exh. BGC-1, p. 5. The Department has previously accepted the use of the arithmetic average to establish a normal year standard. Berkshire Gas, D.T.E. 98-99, p. 8; see also Boston Gas Company, 25 DOMSC 116, p200 (1992). Accordingly, the Department should approve the Company's normal year planning standard of 6,473 degree days.

## C. Design Day Standard

The Company proposed to increase its design day planning standard of 66 degree days approved in <u>Blackstone Gas</u>, D.T.E. 00-81 to 71 degree days. As noted, the 71 degree day standard was derived from the once in 30 year's probability of occurrence. Exh. BGC-1, Appendix.

The Company's weather study also determined that a 70 degree day had a probability of occurrence of once in 20 years and a 72 degree day had a probability of occurrence of once in 40 years. Exh. BGC-1, Appendix 8.

Blackstone believes that its ability to respond to a design day of 71 degree days confirmed the flexibility and responsiveness of the Company's resource plan. The Company has worked to maintain this reliability and flexibility.

Accordingly, the Department should find that the Company's peak day planning standard is appropriate for resource planning.

## D. Design Year Planning Standard

The Company's design year planning standard was developed in a manner similar to that applied in developing the design day standard. The Company adopted the one-in-30 year standard of 7,256 degree days. Exh. BGC-1, p. 6 and Table G-5.

Probabilities of 1 in 20, 40, 50, and 100 year occurrences were also calculated.

Accordingly, the Department should find that the Company's design year planning standard is appropriate for resource planning purposes.

# E. <u>Cold-Snap Planning Standard</u>

The Company established its cold-snap planning standard of 10 day consecutive peak design day. Exh. BGC-1, p. 13. Blackstone recognized the substantial flexibility benefits incorporated within the resource plan and which provides for up to 1,518 Dth/day of supplies from November through March. Table G-23. The Company has currently committed for 1,168 Dth per day in the Winter period which is more than adequate for a cold-snap. Exh. BGC-1, p. 13.

Accordingly, the Department should find that the Company's cold-snap planning standard remains appropriate for purposes of resource planning.

Blackstone has demonstrated that its planning standards are reviewable, reliable and appropriate. These standards were based upon a statistical analysis and the best available weather data. Finally, the Company demonstrated that its resource portfolio reliably meets the Company's requirements. Accordingly, the Company submits that the Department should approve the Company's planning standards.

## IV. ADEQUACY OF RESOURCE PORTFOLIO

#### A. Standard of Review

Pursuant to G.L. c. 164, §691, the Department is required to ensure "a necessary energy supply for the Commonwealth with a minimum impact on the environment at the lowest possible cost." The Department, in fulfilling this mandate, will review a gas company's supply planning process and two major aspects of the utility supply plan - - adequacy and cost. Blackstone Gas, D.T.E. 00-81, p. 11; Berkshire Gas, D.T.E. 98-99, p. 24; Commonwealth Gas Company, D.P.U. 92-159, p.53. Specifically, the Department reviews a gas company's five-year supply plan to determine whether the plan is "adequate to meet projected normal year, design year, design day and cold snap firm sendout requirements." Blackstone Gas, D.T.E. 00-81, p. 12; Berkshire Gas, D.T.E. 98-99, pp. 24-25; Bay State Gas Company, D.P.U. 93-129 (1986). The Department requires that a gas company, in order to establish adequacy, must demonstrate that "it has an identified set of resources that meets its projected sendout under a reasonable range of contingencies." Id.

The Department also reviews a gas company's overall supplying planning process. An appropriate supply planning process requires the development of an adequate, least-cost and low-environmental impact resource plan. <u>Blackstone Gas</u>, D.T.E. 00-81, p. 12, <u>Bay State</u>, D.P.U. 93-

129, p. 28; <u>Berkshire Gas</u>, D.T.E. 98-99, p. 25. A gas company must therefore establish that its supply planning process enables it to identify and evaluate a full range of resource options and to compare all such options on an equal basis. <u>Id</u>. The Department also reviews whether a gas company's five-year supply plan minimizes cost. A least cost supply plan is "one that minimizes costs subject to tradeoffs with adequacy and environmental impact." <u>Id</u>. As demonstrated in the Company's analysis, Blackstone's supply plan and planning process satisfy all of these Department standards.

The Company obtains its firm gas supply through a contract with Duke Energy. Exh. BGC-1, p. 11. This contract was for a term from November 1, 2000 and expires on October 31, 2005. The contract with Duke is a two tiered contract that supplies both base load and peaking gas to the Company's customers. Id. at 12. The base load portion up to 518 MMBTu/day of gas is supplied by Duke and transported and/or stored under contracts between the Company and Tennessee Gas Pipeline which are assigned to Duke for the term of the Duke contact. These supplies are available 365 days a year. Under the peaking portion of the Duke contract available from November 1 through March 31 each year, Duke has agreed to supply up to 1,000 MMBTu/day above base load to the Company at its city-gate. The Company nominates each year the required amount of peaking supply. Blackstone has elected 650 MMBTu/day out of the 1,000 MMBTu/day for the 2003-2004 Winter period. Id.

B. The Company's Resource Portfolio is Adequate to Meet a Range of Projected Sendout Requirements

The design year sendout is projected at 13,798 MCF in 2003 increasing to 15, 227 MCF by 2008. Exh. BGC-1, Table G-5. As shown in Table G-22 the Company has available 287,220

MMBTu's based on its election of 650 MMBTu/day for peaking supply and a maximum availability of 340,070 MMBTu's.

On a design day basis the Company estimates requirements of 989 MMBTu's in 2003 increasing to 1,175 MMBTu's. As shown on Table G-23 the Company has adequate resources to meet its design day sendout through 2008 without access to 350 MMBTu of uncommitted resources. Exh. BGC-1, p. 13.

The Company's contract with Duke Energy provides up to 1,168 MMBTu/day of supplies from November through March. This is more than adequate to meet any cold-snap of 10 consecutive design days. Id.

Accordingly, the Department should fine that Blackstone has demonstrated that its resource plan is adequate to meet projected normal year, design year, design day and cold snap sendout requirements. Sendout through 2008 without access to 350 MMBTu of uncommitted resources.

## V. <u>CONCLUSION</u>

The Company has demonstrated that its sales and sendout forecasts are reviewable, reliable and appropriate. In addition, the Company has shown that it maintains adequate resources to meet firm sendout requirements throughout the forecast period. Further, the Company has explained that its supply planning process enables it to identify a reasonable range of resource options and to perform adequate evaluations of these options. The Company's supply planning process enables Blackstone to make least-cost planning decisions that

contribute to a least-cost resource plan. According, the Department should approve the Forecast and Supply plan of the Company.

Respectfully submitted,

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